october-16-13 10:33:12 AM

108342

Page 1

Item ID: Revision ID:	D3391-023			Accept	*N900	040	100)* s	etup Star	* * N	S1*
	Mid Tube Ass	sembly			•				Stop	*N	S2*
Start Date:	10/16/13	Start Qty: 1.00	• *1	*	S. Cust Item I	D:					
Required Date:	10/30/13	Req'd Qty: 1.00	· *1	*	Customer:			*			
Reference:			•								
Approvals:	Process Pla	an: MLJ	Date: 3~/	ن- الح Tooling:	Da	ite:		R	tun Star	1/1	R1*
:	QC:		Date:	SPC (Y/N):	Da	ate:			Stop	` *N	R2*
Sequence ID/ Work Center II	0	Operation - Operation	·	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Rev	vision Nbr 🗼					٠				
D3391	I								, ,	-24-	
100				0.00							ų.
100 Skidfubes		Skidtubes Menro		0.00						··· ·	
Skidtubes		· / /	ibe to finish length as p	er Dwg D3391 96 (Do not drill "B" holes) and dr	ill only 1 find						
			note on one side only as		an only I iwa	\					
		* "J"		es to Ø0.375" exept for fwd saddle	e hole of detail						. •
		/		exing Ridge as per Dwg D3391					/ /		
		~/		wd & Aft end of skidtube as per I	Owg D3391		\geq	13,	/11/20	mr	n
		16-Debui						. /	. [
		paint m	arker,	earplate Jig DT8217 Identify Ø0. 3-19-20 FROM FWD END OF J							
		& Open (10 hole	wearplate holes of D33 es) as per Dwg D339!	391-023 assembly detail section C	G-G to Ø0.250"						
		(20 hole	es) as per Dwg D3391	391-023 assembly detail section F	I-H to Ø0.297"						

										DQA:	Date:	,
NCR: Y	es /	No				WORK ORDER NON-C	ONFOR	MANCE / UP	PDATE	QA Closed:	Date:	
Work Orde	sý.					DISPOSITION			AGAINST DE		•	
Part N						Rework Scrap Use-as-is Work Order Update	Ther	Skid-tube Machining moforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update	Initial	Ac	ction	Sign &		
Cause		Date	Step	Qty	C	or Non-conformance	Chief En	g Desc	cription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup								1				
Other												
Process												
Supplier			٠.٠					;				• •
Training •		İ	••									
Unapproved							,					
						F/	AULT CAT	EGORY				
Landi	ng Gea	ar				General				-		_
		ending				Bend	Grain			Ovalized	<u>L</u>	Pressure/Forced
	L]c	entre No	t Concer	ntric to	o/s	BOM/Route	Hardv	/are		Over/Under	tolerance	Temperature/Cure
	∐ Cr	racks				Broken/Damaged	Inspe	tion Incomplete		Part Incorre	ct _	Weld
	Шcı	rushed/C	Crimped		L	Burrs	Instru	ctions Incomplete	/Unclear	Part Lost/M	issing	Wrong Stock Pulled
	∐ Cı	uffs		,		Contamination	Main	tenance		Part Moved		
	∐н	eat Trea	t	•		Countersink	Mislal	peled		Positioned V	Wrong	_
	Inspection Strip in Tube Cut Too Short				Misread Power Loss/Surge Othe			Other				
	Ripples in Bend Drill Holes					Offset ·						

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

October-16-13 10:33:12 AM

Revision ID:	D3391-023 Mid Tube Ass	embly		Accept	*N900	040	100)*	Setup	Start Stop	*N:	S1*
	10/16/13	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item Customer:						IV.	
Approvals:		n:				oate:			Run	Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center II)		75" holes to .438" ***do	Set Up/ Run Hours o not open fwd saddle holes* 3 at 9.00" (see view z-z)	Tool ID ** - MM		Plan Code } / 11/20	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
ž	,	remaining f dia hole, us tranfer drill 13- Using E	fwd saddie holes using D ing t-pins and clicos to e ed pilot holes in D339!-	ole only to .188" dia, transfe T 8149 locating from previous ensure perfect allingment, op 023/-021 to 0.438" dia. in D wo previusly drilled holes, di	en up previosly (3391-021	(s/o	stel : n4412	5/2d	A hole	√ -	m	19/01/07
		wearplte ho	ng from two fwd wearplateles in D3391-021 using 0 wearplate holes in D33		remaining 6					ſ		
	*	17- insert T			holes to 0.500"	1	D	7				
				t 2nd and forth saddle hole to		m	m	14/0	\ o =	7		

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NCR: Y	es/	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UPI	DATE			.,
											QA Closed	Date:	
Work Orde	٠ <u>۲</u>					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
Part N	- ۱٥٠					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	-	Water Jet od. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				-		ption of work order update	1	nitial		tion	Sign &		
Cause		Date	Step	Qty	,	or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1									
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Landi	ng G	Gear Bending Centre No Cracks Crushed/ Cuffs Heat Trea	Crimped	ntric to	o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink		4 .	ion Incomplete ions Incomplete/l enance	Jnclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned	lissing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	-	Inspectio		Tube	-	Cut Too Short	\vdash	Misread		+	Power Loss,	_	Other
		Ripples in	Bend			Drill Holes		Offset		_			<u> </u>

Out of Calibration

Outside Dimensions

Out of Sequence

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

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147 A . 🕊	•	er ID 10 10:33:12 AN			*108	342*						Page :
Îtem Revi	sion ID:	D3391-023			Accept	*N900	040	100)* s	Setup Star	1 V	S1*
Item	Name:	Mid Tube As	ssembly							Stop	' *N	S2*
1	Date: iired Date:	10/16/13 10/30/13	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:					
Refe	rence:									S40.		
Appr	ovals:	Process Pl	an:	Date:	Tooling:	D:	ate:		ŀ	Run Star	I <i>N</i>	R1*
		QC:					ate:			Stop	*N	R2*
	ence ID/ k Center II)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
-110			QC5- Inspect part compl	eteness to step on W/O	0.00							
QC	10*		Memo		0.00				- Ic	<u>FO-10-</u>		
Qualit	y Control								:		nake seng	* P. F 1
1201			Chemical Conversion Co	oat per QSI005 4.1	0.00						. *	
	? ^* Finish ! Finishing		Мето		0.00		$\omega \omega$	14	101106			<u> </u>

OC SU

Memo

QC7-Inspect Chemical Conversion Coat

0.00

0.00

Quality Control

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NCR:	⁄es	/ No				WORK ORDER NON-	·CO	NFORI	MANCE / UP	DATE					•
												QA Closed:	D	ate:	
Work Orde	er: _					DISPOSITION				_		PARTMENT			
Part I	-					Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		4	Water Je d. Eng. Coor re/Packagin Supplie		Engineering Quality Other
Root			Ī	T .	Descr	iption of work order update	T	Initial	Ac	tion	-	Sign &			
Cause		Date	Step	Qty	1	or Non-conformance	CI	hief Eng	Desc	ription		Date	Verificati	on	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved			T					* LT CATE	GORY				,		
Landi	ng G	ear				General			•						
		Bending Centre N Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples in	Crimped at \ n Strip in n Bend	\ Tube	7 7	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes	·	Instruct Mainte Mislabe Misreae Offset	ion Incomplete tions Incomplete/ enance eled d	Unclear		Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	ct issing Vrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
1	1 1	Torque V	Vaves in E	Extrusio	n I	Drawing	- 1	IOut of	Calibration						

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

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Wo	rk	Orde	r ID	108342
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October-16-13		(7(1)"	5.34 <i>7</i> "							Page	-4
Item ID: Revision ID: Item Name:	D3391-023 Mid Tube Ass	sembly.		Accept	*N900	040	100)* s	etup	Start Stop	*N:	S1*	
Start Date: Required Date: Reference:	10/16/13	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:				•	"IN	S2*	
Approvals:		in:		Tooling: SPC (Y/N):		nte:		R	tun	Start Stop		R1* R2*	
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp	. !
110 Skidtubes Skidtubes	,	*C'sink flo 3- Prepare to 4-Bond web Adhere for A/R Sikafle batch#:_14	x exp: M17.7097			<u>></u>	·	\ \t	4/01	10%			
^{[50}] * 15∩*	다. 영화 1987 - 1982 - 1982 - 1982 - 1982 - 1982 - 1982 - 1982 - 1982 - 1982 - 1982 - 1982 - 1982 - 1982 - 1982 - 1982	QC5- Inspect part compl		0.00		·		_/_	G	? 	14-0	1-09	5A 18

NCR: Y	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE													
											QA Closed:	Dat	te:	
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	PROCESS		
Part N	lo.					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. e/Packaging Supplier		Engineering Quality Other
Root			-		Descri	ption of work order update		nitial	Act	tion	Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	<u> 1</u>	QC Inspector
Doc/Data														
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						F	AUL	T CATE	GORY					
Landi	_	!			_	General	_	,		_	-			
	-	Bending			<u> </u>	Bend		Grain		_	Ovalized		_	ressure/Forced
	Ш	Centre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	_	emperature/Cure
	<u> </u>	Cracks				Broken/Damaged		Inspecti	ion Incomplete		Part Incorred	t	\^	/eld
	_	Crushed/	Crimped		L	Burrs		4	ions Incomplete/I	Unclear	Part Lost/Mi	ssing	\^	rong Stock Pulled
	⊢	Cuffs				Contamination		Mainte			Part Moved			•
	ь	Heat Trea				Countersink		Mislabe			Positioned V			
		Inspection	n Strip in	Tube		Cut Too Short	<u></u>	Misread	d		Power Loss/	Surge	0	ther
		Ripples in	Bend			Drill Holes		Offset						**************************************
		Torque W	aves in E	Extrusio	n	Drawing		Out of 0	Calibration					

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

October-16-13 10:33:12 AM

Revision ID:	D3391-023 Mid Tube Asse	embly	\$ 40 10 F 0 0	Accept	*N900	040 ′	וחח	* s	etup Start Stop	ı V.	S1* S2*
Start Date: Required Date: Reference:	10/16/13 10/30/13	Start Qty: 1.00 Req'd Qty: 1.00	*1 [*]		Cust Item I Customer:	D:					
Approvals:		n:				ate:		R	kun Start Stop	1/1	R1* R2*
Sequence ID/ Work Center II 160 *160* Skidtubes Skidtubes		Operation Description Skidtubes Memo 1-Weld cross 2-grind weld		Set Up/ Run Hours 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Tool ID 14-01-09			Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170 *170* QC Quality Control		QC10- Inspect visual per	r QSI004- ground we	0.00 0.00				€	D 14.	01.09	DAS 9 9-89
180 *180* QC Quality Control		QC5- Inspect part compl	eteness to step on W	/O 0.00 0.00			-		D 14.	01.05	DAS 9 9-89

									DQA.	Date.	
NCR: Y	es / No				WORK ORDER NON-C	ONFO	RMANCE / UP	PDATE	QA Closed:	Date:	•.
Work Orde	er:		•		DISPOSITION			AGAINST DE			
Part N NCR N			.,		Rework Scrap Use-as-is Work Order Update	The	Skid-tube Machining rmoforming Large Fab	Crosstube Small Fab Finishing Composite	-4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	Initial	Ac	ction	Sign &		•
Cause	Date	Step	Qty	· ·	or Non-conformance	Chief En	g Desc	cription	Date	Verification	QC Inspector
Doc/Data											
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Other			ł	t 		Ì	ŀ				
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Supplier					•]	ļ
Training											*
Unapproved		<u></u>								ļ	
					F	AULT CAT	EGORY				
Landir	ng Gear	,			General			_	7	_	7
	Bending				Bend	Grain			Ovalized	L	Pressure/Forced
		ot Conce	ntric to	o/s	BOM/Route	Hard			Over/Under		Temperature/Cure
	Cracks				Broken/Damaged	—	ction incomplete		Part Incorre		Weld
		/Crimped			Burrs	\vdash	ctions Incomplete,	/Unclear	Part Lost/M		Wrong Stock Pulled
	Cuffs			_	Contamination		tenance		Part Moved		
	Heat Tre				Countersink	Misla			Positioned \	_	7
	—	on Strip in	Tube		Cut Too Short	Misre			Power Loss/	/Surge	Other
	Ripples i	n Bend			Drill Holes	Offse	t				

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

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Work Order II	D 108342
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Quality Control

108342

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October-16-13 10:33:12 AM Item ID: D3391-023 Accept *N900040100* Setup Start Revision ID: Item Name: Mid Tube Assembly *1* 10/16/13 Start Qty: 1.00 **Start Date: Cust Item ID:** Req'd Qty: 1.00 Required Date: 10/30/13 **Customer:** Reference: Start Run Process Plan: _____ Date: Tooling: Approvals: Date: Stop Date: ____ **SPC (Y/N):** Date: Sequence ID/ Operation **Tool ID** Tool # Plan Set Up/ Accept Reject Reject Insp. Work Center ID Number Stamp **Description Run Hours** Code Qty Qty Pressure Wash per QSI005 4.3 185 0.00 1 76 14-1-13 *185* HandFinish 0.00 Memo Hand Finishing AND REALODINE AS PER PAR09-043 190 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 0.00 *190* Powdercoat 0.00 Memo START TIME: Powder Coating OVEN TEMPERAT FINISH TIME: ix f Mulodos 200 QC3- Inspect Part Finish 0.00 0.00 Memo

NCR: Y	es /	No				WORK ORDER NON-O	CON	FORM	MANCE / UP	DATE			•
											QA Closed:	Dat	e:
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS	
Part N						Rework Skid-tube Crosstube Scrap Machining Small Fab			Crosstube Small Fab	Pro	Water Jet d. Eng. Coor.	Engineering Quality	
raich	•••.—					Use-as-is	1		noforming	Finishing	4	re/Packaging	Other
NCR N	No					Work Order Update			Large Fab	Composite]	Supplier	
Root					Descri	ption of work order update	In	itial	Act	tion	Sign &	• •	
Cause	D	ate	Step	Qty	(or Non-conformance	Chie	ef Eng	Desci	ription	Date	Verification	QC Inspector
Doc/Data					•								
Equip/Tooling		l											
Operator													
Material		ŀ											·
Setup													
Other		l											
Process	Ш						-	1					
Supplier													
Training	Ш									.*			
Unapproved								***				ľ	
						F	AULT	CATE	GORY				
Landi	ng Gear				<u></u>	General	_				-	-	_
	Ben	ding				Bend	Ц°	Grain			Ovalized	1	Pressure/Forced
	Cen	tre Not	Concen	itric to O)/S	BOM/Route		Hardwa	ire		Over/Under	tolerance	Temperature/Cure
	Crac	cks			<u></u>	Broken/Damaged		nspecti	ion Incomplete		Part Incorre	ct	Weld
	Crus	shed/Cr	imped			Burrs		nstruct	ions Incomplete/	Unclear	Part Lost/Mi	issing	Wrong Stock Pulled
	Cuff	s				Contamination		Mainte	enance	L	Part Moved		
	Hea	t Treat				Countersink	r	Mislabe	eled		Positioned V	Vrong	_
	Inspection Strip in Tube				Cut Too Short		Misread	d		Power Loss/	Surge [Other	
	Ripp	oles in B	Bend			Drill Holes		Offset					
	Tor	que Wa	ves in E	xtrusion		Drawing		Out of 0	Calibration				
	Turi	ning Sec	quence			Finish		Out of 9	Sequence				
	Wave/Twist in Tube					Folio		Outside	Dimensions				

DQA:

Date:

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W	ork	Orde	r ID	1083	42
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October-16-13 10:33:12 AM D3391-023 Accept Item ID: *N900040100* Setup Start **Revision ID:** Stop Item Name: Mid Tube Assembly *1* Start Qty: 1.00 **Start Date:** 10/16/13 **Cust Item ID:** Required Date: 10/30/13 Reg'd Qty: 1.00 **Customer:** Reference: Run Process Plan: Date: Tooling: Approvals: Date: Stop Date: ____ **SPC (Y/N):** Date: Sequence ID/ Operation Tool ID Tool # Plan Set Up/ Reject Accept Reject Insp. Work Center ID Qty Qty Number Stamp Description Code **Run Hours** 230 0.00 HandFinishing *230* HandFinish 0.00 1- press fit D3591-1 spacers using DT9416 starting from 0.500" side Hand Finishing install unid wearplate 2-Install Inserts as per Dwg QC5- Inspect part completeness to step on W/O 240 0.00 QC 0.00 Memo Quality Control Identify as per dwg & Stock Location: DAS 250 5/1/4/12000 *250* Packaging Memo Packaging

NCR: Y	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE											
					-					QA Closed:	Date	•
Work Orde	r:				DISPOSITION	_		A	GAINST DE	PARTMENT		
Part No				£	Rework Scrap Use-as-is Work Order Update	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			nall Fab inishing	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	1	Initial	Action		Sign &		
Cause	Date	Date Step Qty			or Non-conformance	Ch	ief Eng	Description	1	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved					F	AUI	T CATE	GORY				,
Landin	ng Gear				General	70.	LI CAIL	301(1				
	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend			Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread Offset			Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	
Torque Waves in Extrusion				1 .	Drawing	1	Out of C	Calibration				

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish Folio

Work Order ID 108342

108342

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October-16-13 10:33:12 AM Item ID: D3391-023 Accept *N900040100* Setup Start **Revision ID:** Stop Mid Tube Assembly Item Name: *1* **Start Date:** 10/16/13 Start Otv: 1.00 **Cust Item ID:** Req'd Qty: 1.00 Required Date: 10/30/13 *1* **Customer:** Reference: Run Start Date: Tooling: Process Plan: Approvals: Date: Stop Date: SPC (Y/N): QC: Date: Sequence ID/ Tool ID Tool # Plan Operation Set Up/ Accept Reject Reject Insp. Number Stamp Work Center ID Code Qty Qty Description **Run Hours** 260 QC21- Final Inspection - Work Order Release 0.00 *260* QC 0.00 Memo Quality Control

W14-01-14

NCR: Y	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE												
		•									QA Closed:	Date:	
Work Orde	er: _					DISPOSITION AGAINST DI Rework Skid-tube Crosstube					PARTMENT,	PROCESS Water Jet ✓	Engineering
Part No					Scrap Machining Small Fab Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite				Prod. Eng. Coor. Quality Rec/Store/Packaging Other Supplier				
Root	I			<u> </u>	Descri	ption of work order update		Initial	Act	tion	Sign &		
Cause		Date	Step	Qty	1	or Non-conformance	1	nief Eng		ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling	П										ļ		
Operator	П												
Material			İ				1						
Setup	П												
Other	П												
Process	П		1			•							Ì
Supplier							1						
Training	П					:							
Unapproved	П				! :								
						F	AUI	LT CATE	GORY				
Landi	ng G	iear				General		_			-		
		Bending				Bend	L	Grain			Ovalized	L	Pressure/Forced
}		Centre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	ire		Over/Under	tolerance	Temperature/Cure
		Cracks	-			Broken/Damaged		Inspect	ion Incomplete	:	Part Incorre	ct	Weld
		Crushed/	Crimped			Burrs		Instruct	ions Incomplete/I	Unclear	Part Lost/M	ssing	Wrong Stock Pulled
Cuffs						Contamination		Mainte	enance		Part Moved		
Heat Treat					Countersink	L	Mislabe	eled		Positioned V	Vrong	_	
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	d .		Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes		Offset					
	Torque Waves in Extrusion				n 🗀	Drawing		Out of	Calibration				•

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish Folio October-16-13 10:33:16 AM

Work Order ID: 108342

108342

Parent Item:

D3391-023

D3391-023

Parent Item Name: Mid Tube Assembly

Start Date: 10/16/13

Required Date: 10/30/13

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP A05.10.20New Issue KJ/EC

IPP B06.02.10ECN773 dwg rev.D EC IPP C 07.03.20 rev F dwg EC EC IPP D 07.03.28 re-format IPP E 07.10.31 ecn 1053P EC

IPP Rev:F ECN 1056 07-11-13 DD verified by: EC IPP Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC

IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC

IPP Rev: I 08-11-13 Removed steps per w/o, QC KJ verified by: ec Rev:J add in seq 140 expire date &b# sikaflex DD 10.02.17 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2500-1-100		Manufactured	No			100	Each	107.0000	1	1		and the second of the second	
D2500-1-	-100								**		_m_	13/	11/19
				Location	<u>1</u>	Loc	Qty	Loc Code					
				HALL			107				_		
	. •				82373		28		_	(i)	_		
<u>'m</u>					86065		79		_	<u> </u>	_		
D3391-021		Manufactured	No			100	Each	0.0000	1	1			
D3391-02 Fwd Tube Assembly	21								**				
D3389-1		Manufactured	No			140	Each	9.0000	1	1			
*D3389-13	k								**			141	01/08
				Location	<u>1</u>	<u>Loc</u>	Oty	Loc Code		\wedge			
				LG	B108410		9		_	(1)			
÷.					104968		4		_		_		
					107590		4						

85508

			DQA:	Date:	· a
NCR:	Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE			
			OA Clasadi	Date	

										QA Closeu.	Date	•			
Work Orde	r·				DISPOSITION				AGAINST DE	PARTMENT	PROCESS				
Work Order	· ·				Rework	1		Skid-tube	Crosstube]	Water Jet	Engineering			
Part N	o				Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality			
					Use-as-is		Thermoforming Finishing			Rec/Stor	Other				
NCR N	o				Work Order Update	date Large Fab Composit				Supplier					
Root	<u> </u>			Descri	ption of work order update	ion of work order undate. Ini			nitial Action			Sign &			
Cause	Da	te Ster	Qty		or Non-conformance	1	ief Eng	l	cription	Date	Verification	QC Inspector			
Doc/Data	1 50	ic step	, Qty	•	or reon comormance	<u> </u>	ici eng	0630		Dute	vermedelen	Qu'inspecto.			
Equip/Tooling	1			:											
Operator															
Material						1									
Setup		İ				1		1							
Other															
Process											-				
Supplier						1									
Training															
Unapproved						<u> </u>		<u> </u>							
						AUL	T CATE	GORY							
Landin	ng Gear				General	_	ı		_	7	_	¬			
	Bend	_		<u> </u>	Bend	L	Grain		<u> </u>	Ovalized		Pressure/Forced			
	_	re Not Con	entric to	o/s	BOM/Route		Hardwa			Over/Under	<u> </u>	Temperature/Cure			
	Crac			_	Broken/Damaged	<u> </u>	1	ion Incomplete		Part Incorred	 	Weld			
		ned/Crimpe	ed	-	Burrs	_	4	tions Incomplete,	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled			
-	Cuffs			_	Contamination	<u> </u>		enance		Part Moved					
	Heat Treat				Countersink	-	Mislab		<u> </u>	Positioned V		٦			
	Inspection Strip in Tube			<u> </u>	Cut Too Short	\vdash	Misrea	d	<u> </u>	Power Loss/	Surge	Other			
	Ripples in Bend				Drill Holes	—	Offset	- III:							
	Torque Waves in Extrusion				Drawing	\vdash		Calibration							
	Turning Sequence				Finish	-	1	Sequence							
1	Wave/Twist in Tube				Folio	1	J Outside	e Dimensions							

Pic	kl	ist	Pi	rin	t

October-16-13 10:33:16 AM

Page 2

Work Order ID: 108342

D3391-023

Parent Item Name: Mid Tube Assembly

108342

D3391-023

Start Date: 10/16/13

**

Required Date: 10/30/13

Start Qty: 1.00

Required Qty: 1.00

1D3681-1

Parent Item:

Manufactured

Manufactured

160

Each

189.0000

Spacer

Location	Loc Qty	Loc Code		, , ,
LG	176			
101.754	3			
102202	131		_5	
104856	40			
93371	2			
LG001	10			
68958	2			
69893	2			
71845	2			
74874	1			
76004	i			i ,
77501	2			
LG005	3			
80361	1		<u></u>	
87611	2			
	Each	54.0000	2	/

D3591-1

D3591-1

Bushing

Location	<u>1</u>	Loc Qty	Loc Code
FG		10	
	92873	10	
FP001		44	
	100699	44	

NCR: Y	'es	/ No				WORK ORDER NON-C	O	NFORN	ANCE / UPI	DATE		•			•
											(QA Closed:	Da	te:	
Work Orde	۵ r ٠					DISPOSITION				AGAINST DI	EP.	ARTMENT	PROCESS		
Part No.						Rework Scrap Use-as-is			Skid-tube Crosstube Machining Small Fab hermoforming Finishing			Prod. Eng. Coor.			Engineering Quality Other
NCR No.					Work Order Update			Large Fab	Composite			Supplier			
Root					Descri	ption of work order update	ı	nitial	Act	ion		Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descr	ription		Date	Verificatio	n	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved															
опарргочец	Ļ			ı	L ,	F	AUL	T CATE	GORY				1		1
Landi	ng (Gear			· .	General									
		Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat			o/s	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink		Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled		Jnclear		Part Incorre	er/Under tolerance rt Incorrect rt Lost/Missing rt Moved		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	Г	Inspectio	n Strip in	Tube		Cut Too Short		Misread	1			Power Loss/	Surge		Other
	Г	Ripples in Bend				Drill Holes		Offset							

Out of Calibration
Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

October-16-13 10:33:16 AM

Work Order ID: 108342

108342

Parent Item:

D3391-023

Parent Item Name: Mid Tube Assembly

D3391-023

Start Date: 10/16/13

Required Date: 10/30/13

Start Qty: 1.00

**

Required Qty: 1.00

ALS4-1032-130

Purchased

No

230

Each

3,676.000

20

M. 10101113

ALS4-1032-130

Rivnut

Locatio	<u>n</u>	Loc Qty	Loc Code	
FP001		389		
	119084	116		
	120671	89		
	120807	36		
	120837	8		
	121269	140		
ST279		40		
	124080	40		
st510		1247		
	124163	160		
	M126109	1087		
st555		2000		
	M127028	2000		Y20_

QTY: 11 12×

(2x

PART:

AN3C.4A

NAS 1149 CO 33213

BATCh:

D4095-045 13 108288

111127832

141126319

H

									DQA:	Date:			
NCR: Y	es / No				WORK ORDER NON-CONFORMANCE / UPDATE								
									QA Closed:	Date:			
Work Order:					DISPOSITION AGAINST D			AGAINST DE	DEPARTMENT/PROCESS				
Work Orde			······		Rework		Skid-tube Crosstube			Water Jet	Engineering		
Part No.			Scrap	Machining Small Fab			Pro	d. Eng. Coor.	Quality				
					Use-as-is	Thern	Thermoforming Finishing			re/Packaging	Other		
NCR No.			Work Order Update	ork Order Update Large Fab Composit		Composite		Supplier					
Root				Descri	ption of work order update	Initial	Act	tion	Sign &				
Cause	Date	Step	Qty	(or Non-conformance	Chief Eng	Desci	ription	Date	Verification	QC Inspector		
Doc/Data													
Equip/Tooling		Ì											
Operator				:									
Material													
Setup													
Other													
Process													
Supplier							1						
Training					v-								
Unapproved													
					F/	AULT CATE	GORY						
Landir	ng Gear				General				-		-		
	Bending	Bending Bend			Grain	Grain				Pressure/Forced			
	Centre Not Concentric to O/S BOM,			BOM/Route	Hardwa	arė		Over/Under	tolerance	Temperature/Cure			
	Cracks				Broken/Damaged	Inspect	ion Incomplete		Part Incorre	ct	Weld		
	Crushed/Crimped			Burrs	Instruc	Instructions Incomplete/Unclear			issing	Wrong Stock Pulled			
Cuffs		Contamination	Mainte	Maintenance		Part Moved							
	Heat Tre	at			Countersink	Mislab	Mislabeled			Vrong			
	Inspection	on Strip in	Tube		Cut Too Short	Misrea	d		Power Loss/	Surge	Other		
	Ripples in Bend Drill H			Drill Holes	Offset								

Out of Calibration

Out of Sequence

Outside Dimensions

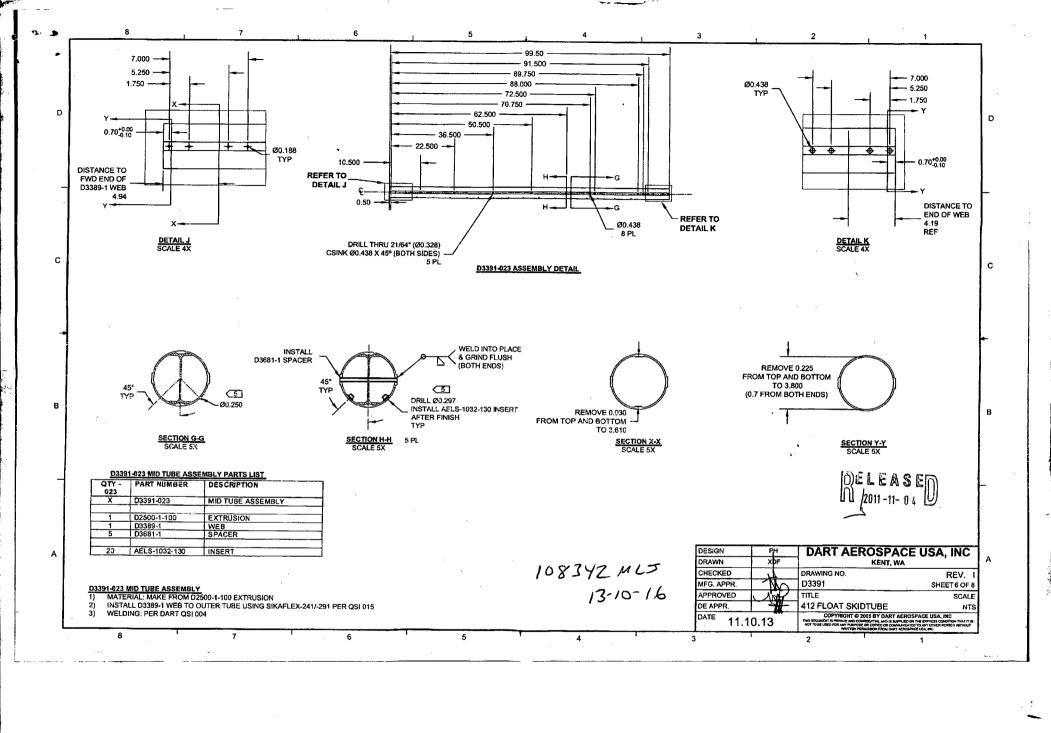
Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish



NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE														
· · · · · · · · · · · · · · · · · · ·								•			QA Closed:	Da	ite:	
Work Order:				DISPOSITION AGAINST			DEF	DEPARTMENT/PROCESS						
Part No			Rework Scrap Use-as-is Work Order Update	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite		Prod Rec/Store		Water Jet d. Eng. Coor. e/Packaging Supplier		Engineering Quality Other				
Root		1		Descri	ption of work order update	Initi	ial	Ac	tion		Sign &			
Cause	Date	Step	Qty		or Non-conformance	Chief	Eng	Desc	ription		Date	Verificatio	'n	QC Inspector
Doc/Data														
Equip/Tooling							i			Í				
Operator														
Material														
Setup														
Other	_1													
Process											,		ļ	
Supplier						,	\ I		_ * - ₂ *		.			-
Training							`							
Unapproved			<u> </u>							i				
FAULT CATEGORY														
Landir	ng Gear				General		•			\Box	الم المالية			0
	Bending			_ -	Bend	\vdash	rain			┉	Ovalized	A -	-	Pressure/Forced
	-		BOM/Route	——	Hardware 		-	Over/Under		-	Temperature/Cure			
	Cracks	/C-:		Broken/Damaged		\vdash	Inspection Incomplete		-	Part Incorred			Weld	
	Crushed/Crimped			Burrs	$\boldsymbol{\vdash}$	Instructions Incomplete/Unclear			-	Part Lost/Mi	ssing		Wrong Stock Pulled	
	Cuffs		Contamination Countersink	_	Maintenance		-	Part Moved Positioned V	Vrong					
	Heat Tre		Tubo	<u> </u>	Cut Too Short	\vdash	Mislabeled Misread		-	Positioned v	_	Г	Other	
:		on Strip in	ilube	-	Drill Holes	\vdash		ı		ட	L OMEL LOSS	Juige	<u> </u>	Other
	Ripples in Bend		<u>,</u>	Drawing		Out of Calibration								

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

NO. 334

AWS D17.1.2001 QUALIFICATION TEST RECORD

0 1 5	
Name: Barclay Elliot	
Job#:	
Part#: 13391-023	
Description: Skiffede	•
Welding Process: Tig[Mig[]	
Base materiel: Hum	
Current: AC[] DC[]	

TEST REQUIREMENTS AND RESULTS

Visual:	pass[/] fail[]
Incomplete Penetration:	pass[fail[]
Incomplete Fusion:	pass[] fail[]
Cracks:	pass[/ fail[]
Overlap (cold lap)	pass[/ fail[]
Undercut:	pass[/ fail[]
Pin holes:	pass[/ fail[]
Porosity (surface):	pass[/] fail[]
Coloration:	pass[/ fail]
Burn through:	pass[/] fail[]

Qualifier Date of Test Coupon 13.10.25

Welder Date of Test Coupon 13-10-25

The above named individual is qualified in accordance with AWS D17.1.2001 to weld